

## **SAFETY ADVISORY**

Updated July 2001

### **ELECTRICAL INSTALLATIONS AND APPROVALS**

There continues to be problems with electrical equipment and installations identified during the course of our internal inspection program. These findings fall into one or more of the categories below:

1. Equipment which has been incorrectly wired, and which has not been inspected by the Electrical Safety Authority, representing either a shock or a fire hazard.
2. Use of equipment which is not approved or certified as required by the Electrical Safety Authority.
3. Deteriorated cords, where the exterior insulation has cracked, exposing the wires inside.
4. Use of cords which have an inappropriate amp rating for either the plug or the equipment, compounded by the use non-CSA approved materials.
5. Use of extension cords for permanent installations.

All of the above situations constitute violations of the Electrical Safety Code and represent potentially hazardous arrangements. In order to correct these situations we encourage the following practices:

- < Inspect electrical cords on a regular basis and repair or replace damaged cords.
- < Only competent persons should install cords on equipment. The Physical Plant Electrical Shop and the Chemistry Electronics Shop, at your request, will repair or replace cords and other electrical components on specialized equipment for a nominal charge.
- < Only use CSA or other approved components (see attached list of approved safety marks) when making a repair.
- < When installing new equipment only use CSA or other approved products (ensure this requirement is stated clearly on the purchase order), or have the equipment inspected by the Electrical Safety Authority (ESA). Call the Electrical Safety Authority, District Office, in Windsor at 1-800-559-5356 or by e-mail at [product.approval@sympatico.ca](mailto:product.approval@sympatico.ca) to arrange for this inspection. Further electrical safety information can be found at <http://www.esainspection.net/>.
- < The PPD electrical shop and/or Mike Wolowich, PPD Electrical Engineer, can be called on to conduct

a preliminary review of the installation prior to the inspection. There is a fee for this service and they will only point out the major points the field inspector will be looking for during the approval process. They also can provide the fee schedule and documentation used by the field inspector as reference guides.

- < If the use of high voltage (greater than 750 V) is required, contact Mike Wolowich at 88713 for assistance in design and installation.
- < Any modifications of the electrical installations in a facility, such as the addition of outlets, must be coordinated by Physical Plant. Do not use extension cords for permanent installations (ie longer than 3 months).

To ensure all electrical equipment has the appropriate certification or approvals the following steps should be taken:

1. When purchasing new equipment, ensure that the equipment supplier is aware of the requirement for approvals acceptable to the ESA of Ontario. This should be stated on the purchase order. Contact purchasing if you receive equipment without acceptable approvals (see attachment). Do not use this equipment until it receives the approval of one of the testing services acceptable to the ESA.
2. To identify existing electrical equipment which is not approved, an inventory should be conducted and each piece checked for the acceptable certification or field approval mark.
3. Those pieces of equipment which do not have an appropriate approval need to be clearly identified. Some of this equipment may be identified as surplus and disposed of appropriately (equipment donated to other institutions should be certified first). For the unapproved equipment you keep, a plan should be developed appropriate to your area, to have it inspected by one of the field approval labs acceptable to the ESA.

If you have any further concerns from a health and safety perspective call extension 84741 or e-mail Allan Hood at [adhood@uwo.ca](mailto:adhood@uwo.ca).

Distribution: Deans, Dept. Chairs, Budget Unit Heads

cc: Mike Wolowich - Electrical Engineer, PPD Facilities Engineering and Construction  
Dave Ostrom - Supervisor, PPD Electrical Shop  
OH&S Committee  
DOHS Staff  
Administrative & Technical Officers

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# Certification Marks



NRTL/C



## Field Approval Marks

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